

REMARKS

In the Office Action, the Examiner rejected Claims 8-20, which were all of the then pending claims, under 35 U.S.C. 103 as being unpatentable over the prior art, and Claims 8-10 and 17 were further rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. With respect to the rejection of the claims under 35 U.S.C. 103, Claims 8, 10, 11, 13, 14 and 16-19 were rejected as being unpatentable over a document titled "Production Planning and Scheduling" (ACSITA), and Claims 9, 12, 15 and 20 were rejected as being unpatentable over ACESITA in view of U.S. Patent 4,459,663 (Dye).

Applicants herein ask that independent Claims 8, 11 and 14 be amended to better define the subject matters of these claims. Claims 10, 13 and 16 are being cancelled because the features described in these claims are now described in Claims 8, 11 and 14 respectively.

For the reasons discussed below, Claims 8, 9 and 17 define statutory subject matter, and all of Claims 8, 9, 11, 12, 14, 15 and 17-20 patentably distinguish over the prior art and are allowable. Accordingly, the Examiner is requested to enter this Amendment, to reconsider and to withdraw the rejection of Claims 8, 9 and 17 under 35 U.S.C. 101 and the rejection of Claims 8, 9, 11, 12, 14, 15 and 17-20 under 35 U.S.C. 103, and to allow Claims 8, 9, 11, 12, 14, 15 and 17-20.

The Examiner rejected Claims 8-10 and 17 under 35 U.S.C. 101 on the basis that these claims lack a nexus with the technological arts. The Examiner further argued that Claims 8 and 17 also are not concrete because they do not have an assured outcome.

Applicants respectfully submit that, in rejecting Claims 8-10 and 17 under 35 U.S.C. 101, the Examiner is requiring more than the law requires. In particular, 35 U.S.C. 101 does not require a specific nexus with "technological arts." Under 35 U.S.C. 101, a patent may be

obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” MPEP 706.03(a) discusses what is meant by the term “process” as used in 35 U.S.C. 101, and as discussed in this section of the MPEP, “process” means “process, art or method.” Claims 8-10 and 17 are expressly directed to a method, and, specifically, to a method for allocating finished units to received customer orders. This is statutory subject matter under 35 U.S.C. 101.

Moreover, Claims 8, 9 and 17 are clearly directed to a practical and useful method having a specific result – allocating units to received customer orders. As explained in the Background section of the present application, allocating finished units to received customer orders is important and can be difficult. The present invention provides a specific solution to that problem and effectively addresses a number of difficult factors, including differing customer requirements and imperfections of the finished units.

To support the contention that Claims 8 and 17 are not concrete, the Examiner argues that “one practicing the invention could begin with a different set of units and orders and proceed in a different processes of matches.” Applicants respectfully submit that this does not show that the claims are non-statutory.

It is, of course, the case that if the method of this invention is applied in different circumstances – with different orders and different finished units – different outcomes may result. But, in each case, the invention has an outcome and a result as described in the claims. The mere fact that a method, when applied in different specific situations, has different outcomes does not demonstrate that the claims are not statutory subject matter.

In light of the above-discussion, Claims 8, 9 and 17 are directed to statutory subject matter under 35 U.S.C. 101. The Examiner is, hence, asked to reconsider and to withdraw the rejection of these claims as non-statutory.

With regard to the rejections of the claims under 35 U.S.C. §103, Applicants submit that all of Claims 8, 9, 11, 12, 14, 15 and 17-20 patentably distinguish over the prior art because that art does not disclose or suggest the way in which valid units are iteratively assigned and unassigned to customer orders, as described in independent Claims 8, 11 and 14.

As discussed in detail in Applicants' previous Amendment, ACESITA, describes preliminary ideas of an Inventory Application system, while the present invention is directed to a material reallocation system.

The present invention, more specifically, takes into account the defects on the surface of a piece of material and the customer requirements. The preferred embodiment of this invention will allocate and reallocate orders to precise regions of coils (material) so that the minimum quality of an order is not violated while minimizing waste of material.

The preferred material Reallocation algorithm of the present invention starts by listing all incomplete orders by due dates. Following the list, the algorithm assigns incomplete orders to available areas of the coils (pieces of material). If no available area is found, it identifies which is the smallest order that can be unassigned in order to open space for the incomplete order. The unassigned order acquires high priority in the original list of incomplete orders. The algorithm continues doing this until all orders are completed or no more options of reallocation is found.

Applicants herein ask that each of independent Claims 8, 11 and 14 be amended to describe more expressly the above-discussed feature of the present invention. Claims 8 and 14, as presented herewith, both elaborate on the step of iteratively assigning and unassigning valid units

until either all the orders are fulfilled or there are no more assignment options to be tested. Specifically, these claims describe the feature that if no available valid unit fulfills a given one, incomplete order, then valid units previously assigned to other orders are searched for a unit that fulfills said given one order. If a unit, previously assigned to some other order, is found that fulfills that given one order, then that found unit is unassigned from said other order and reassigned to the said given one order.

Claim 11, which is directed to a system for allocating finished units to received customer orders, describes analogous apparatus features. In particular, this claim is being amended to indicate that the means for iteratively assigning and unassigning the units to the orders performs the above-discussed function. Specifically, if no available valid unit fulfills a given one, incomplete order, then valid units previously assigned to other orders are searched for a unit that fulfills said given one order; and if a unit, previously assigned to some other order, is found that fulfills that given one order, then that found unit is unassigned from said other order and reassigned to the said given one.

The other references of record have been reviewed, and these other references, whether considered individually or in combination, also do not disclose or suggest this feature of the present invention.

For instance, Dye is directed to allocating a quantity of material to manufacturing orders in a discrete manufacturing production line. The present invention considers further factors such as possible defects of the materials and customer requirements.

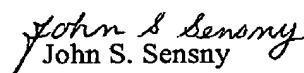
Because of the above-discussed differences between Claims 8, 11 and 14, as amended herein, and the prior art, and because of the advantages associated with those differences, these claims patentably distinguish over the prior art and are allowable. Claims 9, 17 and 20 are

dependent from, and are allowable with, Claim 8. Similarly, Claims 12 and 18 are dependent from Claim 11 and are allowable therewith; and Claims 15 and 19 are dependent from Claim 14 and are allowable therewith.

It is noted that the amendments being made herein to Claims 8, 11 and 14 describe more specifically features already described in Claims 10, 13 and 16. In particular, the latter claims describe the feature of searching through previously assigned units to fulfill incomplete orders. Claims 8, 11 and 14 are being amended to describe more specifically how this is done. It is thus believed that entry of this Amendment is appropriate, and such entry is respectfully requested.

For the reasons discussed above, the Examiner is respectfully asked to enter this Amendment, and to reconsider and to withdraw the rejection of Claims 8, 9 and 17 under 35 U.S.C. §101. The Examiner is further asked to reconsider and to withdraw the rejections of Claims 8, 9, 11, 12, 14, 15 and 17-19 under 35 U.S.C. §103, and to allow these Claims. If the Examiner believes that a telephone conference with Applicants' Attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully Submitted


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